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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,656	02/23/2004	Ben C. Platt	60724/P010C1	2336

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EXAMINER

GEISEL, KARA E

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

8

Office Action Summary	Application No. 10/784,656	Applicant(s) PLATT ET AL.	
	Examiner Kara E Geisel	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25,26,29-39,46 and 48 is/are rejected.
- 7) ☒ Claim(s) 27,28,40-45,47 and 49 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>0504</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Preliminary Amendment

The preliminary amendment filed on February 23rd, 2004, has been entered into this application.

Information Disclosure Statement

The information disclosure statement filed on May 27, 2004 has been fully considered by the examiner.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 29-37 and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regards to claim 29, line 2, "a pattern from the determining" is confusing and generally not understood. Clarification is required.

Claim 39 recites the limitation "the controlling" in line 1. There is insufficient antecedent basis for this limitation in the claim. It appears that this claim was intended to be dependent on claim 38?

Claims, which are dependent from claims 29 and 39 inherit the problems of these claims, and are therefore also rejected under 35 U.S.C. 112, second paragraph.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2877

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 25-26, 29, 38, 46, and 48 are rejected under 35 U.S.C. 102(b) as being anticipated by O'Donnell, Jr. (USPN 5,288,293).

In regards to claim 25, O'Donnell discloses a method for correcting at least one aberration in an optical system comprising providing a radiation adjustable layer to a component of the system (column 4, lines 64-66), determining at least one aberration (column 4, lines 12-21), and applying radiation to the radiation adjustable layer such as to modify an optical characteristic of the radiation adjustable layer to at least partially compensate for the at least one aberration (column 3, lines 18-29).

In regards to claim 26, the component is a refractive element (column 2, lines 37-52).

In regards to claim 29, the radiation is applied in a pattern (column 6, lines 29-36).

In regards to claim 38, the radiation is controlled during the applying (column 6, lines 29-36).

In regards to claim 46, O'Donnell discloses an optical element comprising a portion that affects a path of incident light (implant lens), and a layer that is adjacent to the portion and is adjustable such that radiation modifies at least one optical characteristic of the layer (column 6, lines 29-36).

In regards to claim 48, the element is a refractive element (column 2, lines 37-57).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2877

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 31 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Donnell Jr. (USPN 5,288,293).

In regards to claim 31, the method is disclosed above. While it is not disclosed that the laser is a vertical-cavity surface-emitting laser array, any suitable laser could be used in this method to get the desired result of modifying an optical characteristic, and therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a vertical-cavity surface-emitting laser array in O'Donnell's method in order to modify an optical characteristic of the radiation adjustable layer.

In regards to claim 39, the method is disclosed above. While O'Donnell doesn't teach controlling the intensity or duration of the radiation, it would be obvious to one of ordinary skill in the art so that the layer is irradiated enough to correct the aberration.

Allowable Subject Matter

Claims 27-28, 40-45, 47 and 49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Art Unit: 2877

As to claim 27, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for correcting at least on aberration in an optical system wherein a component is a reflective element, in combination with the rest of the limitations of claim 27.

As to claim 28, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for correcting at least on aberration in an optical system wherein the optical system is selected from the group consisting of a telescope and a camera, in combination with the rest of the limitations of claim 28.

As to claim 40, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for correcting at least on aberration in an optical system wherein an adjustable layer comprises a polymer matrix and a radiation sensitive refraction modulating composition dispersed in the polymer matrix, in combination with the rest of the limitations of claim 40.

As to claim 41, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for correcting at least on aberration in an optical system wherein the radiation is ultraviolet light, in combination with the rest of the limitations of claim 41.

As to claim 42, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for correcting at least on aberration in an optical system wherein determining comprises using a Shack-Hartmann sensor to determine the aberration, in combination with the rest of the limitations of claim 42.

As to claim 43, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for correcting at least on aberration in an optical system comprising irradiating subsequent to applying, an adjustable layer to lock in a modified characteristic, in combination with the rest of the limitations of claim 43.

Art Unit: 2877

As to claim 47, the prior art of record, taken alone or in combination, fails to disclose or render obvious an optical element wherein the element is a component of a telescope and a camera, in combination with the rest of the limitations of claim 47.

As to claim 49, the prior art of record, taken alone or in combination, fails to disclose or render obvious an optical element wherein the element is a reflective element, in combination with the rest of the limitations of claim 49.

Additional Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art made of record is Werblin (USPN 6,413,276).

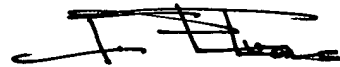
Werblin discloses a method for correcting at least one aberration in an optical system comprising providing a radiation adjustable surface to a component of the system, determining at least one aberration, and applying radiation to the radiation adjustable surface such as to modify an optical characteristic of the radiation adjustable surface to at least partially compensate for the at least one aberration.

Art Unit: 2877

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kara E Geisel whose telephone number is **571 272 2416**. The examiner can normally be reached on Monday through Friday, 8am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley, Jr. can be reached on **571 272 2059**. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872 9306 for regular communications and 703 872 9306 for After Final communications.



F.L. Evans
Primary Examiner
Art Unit 2877

K.G.
KEG